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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/779,897	02/17/2004	Yoshihiro Yazawa	1374-DIV-2-01	9615

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PHILADELPHIA, PA 19103

EXAMINER

YEE, DEBORAH

ART UNIT	PAPER NUMBER
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1742

DATE MAILED: 04/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/779,897

Applicant(s)

YOSHIHIRO YAZAWA ET AL.

Examiner

Deborah Yee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 9-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 10/047,900.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 2-17-04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9 to 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patent 1113084.

3. Similar to the present invention process, EP'084 in paragraph 16 on page 4 discloses heating steel slab to 1170C, rough rolling and hot rolling with a reduction of 24 to 63% using rollers with roll diameters of 500 to 1500mm, annealing at 850C for 8 hours or at 900-970C for one minute, cold rolling and then annealing at 598 to 1125C for 324 seconds or less. More specifically, note process examples shown in Table 2 and 3 on pages 10-11 which closely meet the recited claims but do not teach cold rolling at least twice with intermediate annealing in between. It is the examiner's position that since annealing is a conventional step well known in the metallurgical art to relieve stress after mechanically deforming steel, then it would be obvious and a matter of choice well within the skill of the artisan to incorporate annealing in between cold working to produce no more than the known and expected effect of such an addition.

4. Moreover, note specific example E which meets the claimed composition and when calculated, satisfy equations 1 and 2 recited by claims 9 and 10. Even though JIS G 0552 of not less than 6.5 recited by claims 11 and 12 is not disclosed by prior art,

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such would be expected since composition and process limitations are closely met and very fine grain sizes ranging from 1 to 45 are disclosed.

5. Prior art in paragraph 16 on page 4 conducts rolling with a roller having a diameter of 500 to 1500 mm that meets the diameter of about 300 mm or more recited by claims 13 to 17.

6. Claims 9 to 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patent 675206 .

7. EP'206 in lines 55-57 on page 7 and lines 1 to 70 on page 8 discloses a ferritic stainless steel sheet processed by heating to 1200C, hot rolling, annealing at 850 for 4 hours, pickling, cold rolling (reduction 82.5%) and finish annealing (860 for 60 seconds) which closely meets the recited claims except does not teach cold rolling at least twice with intermediate annealing in between. It is the examiner's position that since annealing is a conventional step well known in the metallurgical art to relieve stress after mechanically deforming steel, then it would be obvious and a matter of choice well within the skill of the artisan to incorporate annealing in between cold working to produce no more than the known and expected effect from such step.

8. Moreover, note specific examples in Tables 1 to 3 that closely meet the claimed composition and when calculated, satisfy the claimed equations, and are processed in substantially the same manner as claimed by applicant. Even though JIS G 0552 of not least than 6.5 recited by claims 11 and 12 is not disclosed by prior art, such would be expected since composition and process limitations are closely met and in absence of proof to the contrary.

9. Even though a work roller having a diameter of 300 mm or more recited by claims 13 to 17 are not taught by prior art, such would be a matter of choice well within the skill of the artisan and productive of no new and unexpected results.

10. Claims 18 to 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patent 1113084 or European patent 675206 as applied to claims 9 to 17 above, and further in view of Moyle et al (US Patent 5,859,095) or Omosako et al (US Patent 5,677,268).

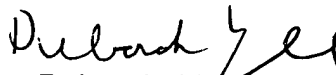
11. EP patents closely meet the claimed process except fails include the step of bake-coating the finish-annealed ferritic stainless steel sheet with a lubricant coating comprising an acrylic resin, calcium stearate, and polyethylene wax in a coating amount of 0.5 to 4.0 g/m². It is the examiner's position that coating a steel surface with such lubricant to further enhance workability and corrosion resistance is well known in the art, as evident by the secondary references; hence it would an obvious modification well within the skill of the artisan to apply coating to EP steel sheet since enhance workability and corrosion resistance are desired and sought. Moreover, the amount of coating would be a matter of routine optimization well within the skill of the artisan and productive of no new and unexpected results.

12. The unapplied references have been cited to further depict the state of the art in ferritic stainless steel sheets.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 571-272-1253. The examiner can normally be reached on Monday-Friday from 6:00 to 2:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Deborah Yee
Primary Examiner
Art Unit 1742

dy